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NATIONAL COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

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WEEKLY REPORT

Week Ending July 13, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

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EPIDEMIOLOGIC NOTES AND REPORTS

FOLLOW-UP PLAGUE — Denver, Colorado

The organism isolated from the blood of a 6-year-old female, living in east central Denver (MMWR, Vol. 17, No. 27), has been confirmed as *Pasteurella pestis* on the basis of staining characteristics, colonial morphology, phage typing, fluorescent antibody (FA) tests, and guinea pig inoculation studies. A dead squirrel found three-fourths of a block from the patient's residence has been found positive for *P. pestis* by FA tests.

In Denver a major die-off of the eastern fox squirrel *Sciurus niger* (the common tree squirrel) has been confirmed. From a total of 123 dead animals (including 3 rabbits, 10 ground squirrels, and 110 eastern fox squirrels) collected in Denver, 27 eastern fox squirrels were positive for *P. pestis* by FA tests. To date, *P. pestis* has been isolated from five of these 27 squirrels. Although dead squirrels from all sectors of the city have been examined, the majority of plague positive animals were from the northeastern section of the city. Baited DDT dust boxes have been placed in trees throughout the Denver

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TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	28th WEEK ENDED July 13, 1968	28th WEEK ENDED July 15, 1967	MEDIAN 1963 - 1967	CUMULATIVE, FIRST 28 WEEKS 1968	CUMULATIVE, FIRST 28 WEEKS 1967	CUMULATIVE, FIRST 28 WEEKS MEDIAN 1963 - 1967
Aseptic meningitis	77	59	49	1,020	989	833
Brucellosis	2	12	12	101	148	148
Diphtheria	1	1	2	90	57	87
Encephalitis, primary:						
Arthropod-borne & unspecified	24	21	---	481	715	---
Encephalitis, post-infectious	8	14	---	297	495	---
Hepatitis, serum	67	40	566	2,203	1,117	22,566
Hepatitis, infectious	826	665		23,380	20,986	
Malaria	42	33	4	1,148	1,070	54
Measles (rubeola)	325	539	2,180	18,190	55,696	232,261
Meningococcal infections, total	36	38	38	1,729	1,475	1,672
Civilian	36	37	---	1,563	1,370	---
Military	—	1	---	166	105	---
Mumps	1,270	---	---	118,369	---	---
Poliomyelitis, total	2	2	2	29	13	31
Paralytic	2	2	2	29	11	29
Rubella (German measles)	427	394	---	40,924	37,881	---
Streptococcal sore throat & scarlet fever	4,907	5,439	4,278	265,609	287,399	259,662
Tetanus	2	7	6	75	102	124
Tularemia	11	4	10	113	86	132
Typhoid fever	9	8	8	156	209	197
Typhus, tick-borne (Rky. Mt. spotted fever)	9	15	14	100	128	101
Rabies in animals	83	82	82	1,990	2,449	2,449

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Rabies in man:	—
Botulism:	3	Rubella, Congenital Syndrome:	3
Leptospirosis: Hawaii-1	14	Trichinosis: NYC-1	38
Plague: Colo.-1	1	Typhus, murine: Fla.-1	11
Psittacosis: N.Mex.-1	27		

FOLLOW-UP PLAGUE – *(Continued from front page)*

area as a control measure for the flea ectoparasite *Orchopeas howardi* which infests the fox squirrel. Systematic squirrel collection and close surveillance for other dead rodents are being conducted.

On July 9, Dr. Roy Cleere, Director of Public Health, Colorado Department of Health, issued a letter to all physicians in the Denver metropolitan area and Boulder, Colorado, that reported the case of plague and included diagnostic, epidemiologic, and therapeutic information. On July 15, Dr. Cleere issued a follow-up letter to physicians and hospitals in the greater Denver area indicating that other dead squirrels had been found in Denver. It was requested that any suspected cases of plague be reported immediately to the Epidemiology Section, Colorado Department of Health.

(Reported by R. L. Cleere, M.D., M.P.H., Director of Public Health, and Cecil S. Mollohan, M.D., M.P.H., Chief, Section of Epidemiology, Colorado Department of Health; the Zoonoses Section, Ecological Investigations Program, NCDC, Ft. Collins, Colorado; and an EIS Officer.)

FOLLOW-UP TULAREMIA – Vermont

A statewide survey performed in June of persons in Vermont known to have handled muskrats during the spring trapping and shooting season has led to the diagnosis of six additional tularemia cases in Vermont. Including the 40 cases reported earlier (MMWR, Vol. 17, Nos. 18 and 21), the total number of cases has reached 46 of which 44 have been serologically confirmed. Serologic studies are pending on two patients with clinical histories compatible with tularemia.

All 46 persons had handled muskrats taken from three streams and their tributaries which flow into the eastern shore of Lake Champlain (Otter Creek, Little Otter Creek, and Lewis Creek) (Figure 1). The attack rate for persons who handled more than 50 animals (71 percent) was significantly higher than the attack rate for persons who handled fewer than 50 animals (35 percent) (Table 1). The largest group of cases and the highest attack rate were among persons handling animals taken from Dead Creek, a tributary of Otter Creek (Table 2). Of the seven persons who trapped Dead Creek and did not become ill, three wore gloves and four handled fewer than 50 animals.

Table 1
Attack Rates in Trappers by Number of Muskrats Handled
Vermont – March 25-April 30, 1968

Number of Muskrats Handled	Number of Persons Ill	Number of Persons Well	Total	Attack Rate (Percent)
50	28	11	39	71
50	18	33	51	35
Total	46	44	90	51

Approximately 100 persons who handled muskrats trapped outside Addison County (Figure 1) have been interviewed and approximately 50 percent have had their sera tested for evidence of tularemia. There have been no suggestive clinical histories of diagnostic serologies in this group.

Samples of mud and water taken during the first week of May along Dead Creek have been inoculated into guinea pigs. Following death of the animals, spleen homogenates were cultured directly. By this method, *Francisella tularensis* has been recovered from a set of mud and water samples taken from a point where extensive trapping had taken place. The organism was previously recovered from muskrats obtained in this area during an animal collection survey that was in progress when the water and mud samples were collected (MMWR, Vol. 17, No. 21).

Figure 1
CASES OF TULAREMIA BY AREA OF TRAPPING
ADDISON COUNTY, VERMONT – 1968

(Reported by Donald S. Bicknell, M.D., Vergennes, Vermont; Linus J. Learens, M.D., Director, Bureau of Communicable Disease Control, and Dymitry Pomar, D.V.M., Director, Bureau of Laboratories, Vermont Department of Health; Epidemiological Services Laboratory Section, Epidemiology Program, and Bacterial Serology Unit, Laboratory Program, NCDC; and a team from NCDC.)

Table 2
Attack Rates in Trappers by Streams from Which Muskrats Were Taken
Vermont – March 25-April 30, 1968

Stream	Positive Serology* and/or Typical Symptoms**	No Symptoms and Negative Serology	Total	Attack Rate (Percent)
Dead Creek	31	7	38	81
Otter Creek	7	29	36	19
Little Otter and Lewis Creeks	8	8	16	50
Total	46	44	90	

*Titer of 1:160 or higher
**Fever, prostration, lymphadenopathy, and hand ulcer(s)

TULAREMIA – Ogdensburg, New York

During the last week of March and the first week of April 1968, four muskrat trappers in Ogdensburg, New York, developed fever and regional adenopathy. A lymph node biopsy on April 24 from one of these trappers revealed granulomatous lymphadenitis. All four trappers had agglutination titers against *Francisella tularensis* of 1:160 or higher in sera drawn from 1 to 3 months after onset of symptoms. The two sons of one ill trapper, both of whom assisted in the preparation of animals and one of whom was clinically ill, had serologies of 1:160 or greater against *F. tularensis*. In two trappers high titers to *Brucella abortus* were noted. No history of raw milk ingestion or other exposure to *B. abortus* was obtained; agglutination absorption studies confirmed *F. tularensis* infection.

Ogdensburg is located on the bank of the St. Lawrence River in northwestern New York, approximately 120 miles from Crown Point, New York, where three other cases of tularemia in muskrat trappers were recently reported (MMWR, Vol. 17, No. 20). All of the Ogdensburg trappers took their animals from the Oswegatchie River. According to trappers, this area harbored unusually large numbers of live muskrats this year and dead muskrats were apparent. Bacteriologic studies are underway on frozen specimens of muskrats trapped by these individuals. No cases of tularemia in muskrat trappers have been reported in the region between Crown Point and Ogdensburg this year.

(Reported by Hugh F. Frame, M.D., Health Officer, Odgensburg, New York; Robert Lonngren, M.D., Ogdensburg, New York; John T. Prior, M.D., Professor of Pathology, Upstate Medical Center, Syracuse, New York; Robert Bacorn, M.D., Regional Health Officer, Syracuse Regional Office, Syracuse, New York; Melvin Abelseth, D.V.M., Assistant Director, Laboratory for Veterinary Science, Mrs. Orpha Clemons, Bacteriologist, James O. Culver, M.D., Public Health Physician, Bureau of Epidemiology, and Julia L. Freitag, M.D., Director, Bureau of Epidemiology, New York State Health Department; and an EIS Officer.)

PARATHION POISONING – Texas

On June 13, 1968, 23 cotton workers near Santa Rosa, Texas, were poisoned with the chemical parathion*. Their initial symptoms were nausea, vomiting, sweating, and extreme weakness, and two patients subsequently developed acute pulmonary edema. In all cases, onset of symptoms was approximately 2 1/2 hours after the workers entered a field that had been sprayed with a combination of methyl and ethyl parathion the night before, June 12. Of the 23 patients, 13 required hospitalization and 10 were treated as out-patients.

The patients were initially treated with 2 mgm atropine, intravenously, and 2 PAM**. In addition to treatment, immediate steps were taken to decontaminate the patients by removing their clothing and washing their skin to prevent further absorption of the parathion. Serum cholinesterase activity (which is depressed in organic phosphate poisonings) was determined on all patients by the Caraway method.[1] The normal range for serum cholinesterase activity by this method is 65-100 units per ml. The values obtained for the hospitalized patients ranged from 2-8 units per ml and for the out-patients from 30-60 units per ml.

Within 3 days, all patients had completely recovered and were discharged from the hospital. Follow-up treatment for all 23 patients included atropine tablets in sufficient quantities to maintain a dry mouth and daily observation by the local physician.

On June 12 the cotton field had been sprayed with parathion. Because of a heavy dew that evening, considerable moisture was present on the cotton plants the following day. Because of this moisture and the height of the cotton plants (approximately 3 1/2 feet), the workers' clothing was thoroughly soaked soon after work started in the field. These factors contributed to increased exposure to the parathion. All 23 workers were local residents, and most of them had worked for the cotton field owner for several years and had worked with parathion in the past without any adverse effects.

(Reported by J. S. Wiserman, Ph.D., Project Director, Community Pesticides Study, Texas State Department of Health, San Benito, Texas.)

*Parathion is O,O-dimethyl O-(p-nitrophenyl) phosphorothioate
**2-PAM is 2-Pyridine aldoxime methochloride (or pralidoxime chloride)

Reference:
[1]Caraway, Wendell, T.: Photometric Determination of Serum Cholinesterase Activity, Am J Clin Pathol 26:945-955, 1956.

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
JULY 13, 1968 AND JULY 15, 1967 (28th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA
					Primary including unsp. cases		Post-Infectious	Serum	Infectious		
	1968	1967	1968	1968	1968	1967	1968	1968	1968	1967	1968
UNITED STATES...	77	39	2	1	24	21	8	67	826	663	42
NEW ENGLAND.....	1	-	-	-	-	1	1	-	34	24	1
Maine.....	-	-	-	-	-	-	1	-	3	3	-
New Hampshire.....	-	-	-	-	-	-	-	-	-	3	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	-	-	-	-	-	-	-	14	12	1
Rhode Island.....	1	-	-	-	-	-	-	-	10	1	-
Connecticut.....	-	-	-	-	-	1	-	-	7	5	-
MIDDLE ATLANTIC.....	3	4	-	-	1	3	3	21	150	109	4
New York City.....	1	2	-	-	1	2	-	8	53	37	1
New York, up-State.	-	-	-	-	-	-	1	4	25	27	1
New Jersey.....	1	1	-	-	-	-	-	8	35	21	2
Pennsylvania.....	1	1	-	-	-	1	2	1	37	24	-
EAST NORTH CENTRAL...	14	10	-	-	7	9	-	-	156	113	3
Ohio..*	7	2	-	-	3	8	-	-	39	25	-
Indiana.....	2	-	-	-	1	-	-	-	13	3	-
Illinois.....	2	1	-	-	2	-	-	-	49	45	-
Michigan.....	3	7	-	-	1	1	-	-	44	32	3
Wisconsin.....	-	-	-	-	-	-	-	-	11	8	-
WEST NORTH CENTRAL...	3	1	-	-	3	-	2	2	47	45	2
Minnesota.....	-	1	-	-	2	-	-	2	11	7	-
Iowa.....	-	-	-	-	-	-	1	-	7	5	-
Missouri.....	-	-	-	-	1	-	-	-	17	30	-
North Dakota.....	-	-	-	-	-	-	-	-	-	-	-
South Dakota.....	-	-	-	-	-	-	-	-	1	-	-
Nebraska.....	-	-	-	-	-	-	-	-	1	1	-
Kansas.....	3	-	-	-	-	-	1	-	10	2	2
SOUTH ATLANTIC.....	3	5	2	1	2	2	-	2	65	65	12
Delaware.....	-	-	-	-	1	-	-	-	3	1	-
Maryland.....	-	1	-	-	-	1	-	1	20	15	3
Dist. of Columbia..	1	-	-	-	-	-	-	-	2	2	-
Virginia.....	-	1	2	-	1	-	-	-	3	17	-
West Virginia.....	-	-	-	-	-	-	-	-	1	10	-
North Carolina.....	1	-	-	-	-	1	-	-	6	3	8
South Carolina.....	-	-	-	-	-	-	-	-	2	3	-
Georgia.....	-	-	-	-	-	-	-	-	5	2	-
Florida.....	1	3	-	1	-	-	-	1	23	12	1
EAST SOUTH CENTRAL...	3	8	-	-	-	1	-	1	48	29	1
Kentucky.....	-	-	-	-	-	-	-	-	12	7	-
Tennessee.....	1	8	-	-	-	1	-	1	29	11	-
Alabama.....	2	-	-	-	-	-	-	-	3	1	-
Mississippi.....	-	-	-	-	-	-	-	-	4	10	1
WEST SOUTH CENTRAL...	32	11	-	-	3	2	-	3	48	59	-
Arkansas..*	-	-	-	-	-	-	-	-	-	2	-
Louisiana.....	17	-	-	-	2	-	-	1	12	6	-
Oklahoma..*	1	-	-	-	1	1	-	-	5	5	-
Texas.....	14	11	-	-	-	1	-	2	31	46	-
MOUNTAIN.....	-	-	-	-	2	1	-	-	36	40	7
Montana.....	-	-	-	-	1	-	-	-	12	10	-
Idaho.....	-	-	-	-	-	-	-	-	2	3	-
Wyoming.....	-	-	-	-	-	-	-	-	-	-	-
Colorado.....	-	-	-	-	-	1	-	-	-	6	7
New Mexico.*	-	-	-	-	1	-	-	-	5	4	-
Arizona.....	-	-	-	-	-	-	-	-	12	13	-
Utah.....	-	-	-	-	-	-	-	-	4	4	-
Nevada.....	-	-	-	-	-	-	-	-	1	-	-
PACIFIC.....	18	20	-	-	6	2	2	38	242	181	12
Washington.....	-	1	-	-	1	-	-	-	11	19	1
Oregon.....	-	-	-	-	-	1	-	1	12	12	-
California.....	14	12	-	-	4	1	2	37	214	150	2
Alaska.....	2	-	-	-	-	-	-	-	3	-	-
Hawaii.....	2	7	-	-	1	-	-	-	2	-	9
Puerto Rico.....	-	-	-	-	-	-	-	-	11	25	-

* Delayed reports: Aseptic meningitis: Okla. 1
Hepatitis, infectious: Ohio delete 1, Ark. delete 1, N. Mex. 4

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
JULY 13, 1968 AND JULY 15, 1967 (28th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
		Cumulative			Cumulative			Total	Paralytic		
	1968	1968	1967	1968	1968	1967	1968	1968	1968	Cum. 1968	1968
UNITED STATES...	325	18,190	55,696	36	1,729	1,475	1,270	2	2	29	427
NEW ENGLAND.....	20	1,100	792	1	88	58	153	-	-	1	69
Maine..*.....	-	35	233	-	6	3	5	-	-	-	11
New Hampshire..*...	-	141	72	-	7	2	2	-	-	-	-
Vermont.....	-	1	34	-	1	-	-	-	-	-	1
Massachusetts..*...	9	352	308	1	38	29	88	-	-	1	18
Rhode Island.....	-	1	60	-	7	4	29	-	-	-	21
Connecticut.....	11	570	85	-	29	20	29	-	-	-	18
MIDDLE ATLANTIC.....	165	3,520	2,135	5	304	235	126	-	-	-	61
New York City.....	105	1,635	411	3	65	38	101	-	-	-	50
New York, Up-State.	14	1,149	523	1	48	59	NN	-	-	-	5
New Jersey.....	44	590	477	-	111	85	25	-	-	-	5
Pennsylvania.*.....	2	146	724	1	80	53	NN	-	-	-	1
EAST NORTH CENTRAL...	27	3,539	5,041	7	209	191	340	-	-	1	98
Ohio.....	3	279	1,116	2	56	66	31	-	-	-	11
Indiana.....	2	616	579	-	28	21	18	-	-	-	5
Illinois.....	10	1,319	876	3	47	45	24	-	-	1	27
Michigan.....	2	238	871	2	61	44	49	-	-	-	29
Wisconsin.....	10	1,087	1,599	-	17	15	218	-	-	-	26
WEST NORTH CENTRAL...	7	361	2,772	-	86	63	42	1	1	1	11
Minnesota.....	-	15	128	-	19	15	-	-	-	-	1
Iowa.....	4	93	738	-	6	12	39	-	-	-	7
Missouri.....	-	80	329	-	31	12	1	1	1	1	-
North Dakota.....	-	123	814	-	3	1	-	-	-	-	3
South Dakota.....	-	4	52	-	4	6	NN	-	-	-	-
Nebraska.....	1	36	618	-	6	11	-	-	-	-	-
Kansas.....	2	10	93	-	17	6	2	-	-	-	-
SOUTH ATLANTIC.....	19	1,371	6,612	5	351	286	86	-	-	1	44
Delaware.....	-	14	43	-	6	5	4	-	-	-	-
Maryland.....	2	82	142	-	26	34	27	-	-	-	4
Dist. of Columbia..	-	6	22	-	13	10	9	-	-	-	1
Virginia.....	1	289	2,066	1	28	35	4	-	-	-	6
West Virginia.....	10	249	1,334	1	9	20	23	-	-	-	8
North Carolina.....	-	281	838	1	69	60	NN	-	-	1	-
South Carolina.....	1	13	492	-	55	27	1	-	-	-	1
Georgia.....	-	4	32	1	61	43	-	-	-	-	-
Florida..*.....	5	433	1,643	1	84	52	16	-	-	-	24
EAST SOUTH CENTRAL...	15	538	5,000	3	148	120	77	-	-	1	30
Kentucky..*.....	2	169	1,289	-	57	34	2	-	-	1	2
Tennessee.....	-	55	1,756	1	49	49	67	-	-	-	27
Alabama.....	10	85	1,303	2	22	24	8	-	-	-	1
Mississippi.....	3	229	652	-	20	13	-	-	-	-	-
WEST SOUTH CENTRAL...	39	4,479	16,878	6	287	206	126	1	1	16	33
Arkansas.....	-	2	1,401	1	20	25	-	-	-	-	-
Louisiana.....	-	2	149	2	81	82	-	-	-	-	-
Oklahoma..*.....	1	110	3,314	1	49	15	-	-	-	1	-
Texas.....	38	4,365	12,014	2	137	84	126	1	1	15	33
MOUNTAIN.....	12	938	4,469	1	27	26	149	-	-	-	26
Montana.....	-	66	275	-	3	-	5	-	-	-	1
Idaho.....	-	20	368	-	11	1	21	-	-	-	-
Wyoming.....	-	50	178	-	-	1	-	-	-	-	-
Colorado.....	4	479	1,492	1	8	11	36	-	-	-	4
New Mexico..*.....	3	85	571	-	-	3	3	-	-	-	1
Arizona.....	5	212	973	-	1	4	47	-	-	-	20
Utah.....	-	21	343	-	1	4	37	-	-	-	-
Nevada.....	-	5	269	-	3	2	-	-	-	-	-
PACIFIC.....	21	2,344	11,997	8	229	290	171	-	-	8	55
Washington.....	1	514	5,384	1	37	25	5	-	-	-	-
Oregon..*.....	7	454	1,515	-	17	24	15	-	-	-	2
California.....	13	1,340	4,823	7	162	228	121	-	-	8	42
Alaska.....	-	2	128	-	2	9	4	-	-	-	2
Hawaii.....	-	34	147	-	11	4	26	-	-	-	9
Puerto Rico.....	8	347	2,015	1	19	10	34	-	-	-	-

* Delayed reports: Measles: Mass. delete 1, Pa. delete 10, Ore. delete 5
Meningococcal infections: Fla. 2
Mumps: N.H. 4, Okla. 2
Poliomyelitis, paralytic: Ky. 1
Rubella: Me. 3, N.H. 1, N. Mex. 4, Ore. 5

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JULY 13, 1968 AND JULY 15, 1967 (28th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968
UNITED STATES...	4,907	2	75	11	113	9	156	9	100	83	1,990
NEW ENGLAND.....	722	-	1	6	46	1	5	-	-	3	65
Maine...*.....	3	-	-	-	-	-	-	-	-	-	50
New Hampshire.....	14	-	-	-	-	1	1	-	-	-	2
Vermont.....	58	-	-	6	46	-	-	-	-	2	10
Massachusetts.....	108	-	-	-	-	-	2	-	-	1	2
Rhode Island.....	59	-	-	-	-	-	-	-	-	-	-
Connecticut.....	480	-	1	-	-	-	2	-	-	-	1
MIDDLE ATLANTIC.....	204	-	10	-	7	1	13	-	7	3	20
New York City.....	8	-	5	-	-	-	7	-	-	-	-
New York, Up-State.	195	-	4	-	7	1	3	-	1	3	14
New Jersey.....	NN	-	-	-	-	-	-	-	1	-	-
Pennsylvania.....	1	-	1	-	-	-	3	-	5	-	6
EAST NORTH CENTRAL...	404	-	8	-	7	1	24	-	3	16	184
Ohio.....	119	-	-	-	1	-	11	-	2	3	72
Indiana.....	55	-	1	-	1	-	3	-	-	1	60
Illinois.....	60	-	5	-	4	1	9	-	1	5	23
Michigan.....	104	-	2	-	1	-	-	-	-	-	9
Wisconsin.....	66	-	-	-	-	-	1	-	-	7	20
WEST NORTH CENTRAL...	173	-	3	1	8	-	8	-	3	22	460
Minnesota.....	37	-	1	-	-	-	-	-	-	11	136
Iowa.....	34	-	-	-	-	-	1	-	-	4	86
Missouri.....	-	-	2	1	6	-	3	-	1	1	76
North Dakota.....	63	-	-	-	-	-	-	-	-	5	80
South Dakota.....	15	-	-	-	1	-	1	-	1	-	34
Nebraska.....	20	-	-	-	-	-	3	-	1	1	23
Kansas.....	4	-	-	-	1	-	-	-	-	-	25
SOUTH ATLANTIC.....	391	-	14	-	7	-	39	2	54	9	220
Delaware.....	3	-	-	-	-	-	-	-	-	-	-
Maryland.....	115	-	1	-	-	-	7	1	6	-	3
Dist. of Columbia..	45	-	1	-	-	-	2	-	-	-	-
Virginia.....	72	-	2	-	1	-	8	1	22	-	87
West Virginia.....	123	-	1	-	-	-	-	-	-	2	29
North Carolina.....	-	-	2	-	2	-	2	-	16	1	9
South Carolina.....	8	-	1	-	-	-	-	-	2	-	-
Georgia.....	6	-	-	-	2	-	9	-	6	2	33
Florida.....	19	-	6	-	2	-	11	-	2	4	59
EAST SOUTH CENTRAL...	1,039	-	9	-	6	2	19	7	17	11	468
Kentucky.....	11	-	1	-	1	2	5	2	3	8	227
Tennessee.....	859	-	2	-	4	-	11	5	12	2	219
Alabama.....	115	-	3	-	-	-	-	-	1	1	21
Mississippi.....	54	-	3	-	1	-	3	-	1	-	1
WEST SOUTH CENTRAL...	557	1	16	4	26	3	14	-	13	8	361
Arkansas.....	8	-	4	3	5	2	3	-	1	1	42
Louisiana.....	1	-	5	1	5	-	2	-	-	2	33
Oklahoma.....	50	-	-	-	6	1	4	-	6	1	107
Texas.....	498	1	7	-	10	-	5	-	6	4	179
MOUNTAIN.....	812	-	-	-	5	-	9	-	2	4	51
Montana.....	21	-	-	-	-	-	-	-	-	-	-
Idaho.....	47	-	-	-	-	-	-	-	-	-	-
Wyoming.....	12	-	-	-	1	-	1	-	-	-	2
Colorado.....	420	-	-	-	2	-	2	-	2	-	3
New Mexico.*.....	132	-	-	-	-	-	6	-	-	-	20
Arizona.....	56	-	-	-	-	-	-	-	-	4	26
Utah.....	124	-	-	-	2	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	605	1	14	-	1	1	25	-	1	7	161
Washington.....	22	-	1	-	-	-	-	-	-	-	-
Oregon.....	43	-	1	-	1	-	3	-	-	-	3
California.....	383	1	12	-	-	1	22	-	1	7	158
Alaska.....	37	-	-	-	-	-	-	-	-	-	-
Hawaii.....	120	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	11	-	5	-	-	-	1	-	-	-	16

* Delayed reports: SST: Me. 1, N. Mex. 41
Rabies in animals: N. Mex. 1

Week No. 28

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JULY 13, 1968

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
NEW ENGLAND:	766	473	50	31
Boston, Mass.	231	129	17	8
Bridgeport, Conn.	59	40	6	1
Cambridge, Mass.	21	12	-	-
Fall River, Mass.	33	24	3	1
Hartford, Conn.	63	33	2	3
Lowell, Mass.	30	18	-	2
Lynn, Mass.	27	19	1	2
New Bedford, Mass.	24	15	1	-
New Haven, Conn.	58	34	1	5
Providence, R. I.	61	35	3	3
Somerville, Mass.	11	10	-	-
Springfield, Mass.	47	28	4	4
Waterbury, Conn.	40	27	-	-
Worcester, Mass.	61	49	12	2
MIDDLE ATLANTIC:	3,582	2,059	150	176
Albany, N. Y.	50	31	2	4
Allentown, Pa.	31	19	2	3
Buffalo, N. Y.	153	80	3	13
Camden, N. J.	56	23	3	11
Elizabeth, N. J.	49	32	2	1
Erie, Pa.	36	19	2	4
Jersey City, N. J.	62	34	2	5
Newark, N. J.	83	38	3	6
New York City, N. Y.	1,721	1,000	92	73
Paterson, N. J.	60	37	1	1
Philadelphia, Pa.	519	281	9	20
Pittsburgh, Pa.	238	119	7	15
Reading, Pa.	65	47	4	4
Rochester, N. Y.	127	87	5	3
Schenectady, N. Y.	31	18	-	-
Scranton, Pa.	41	28	2	-
Syracuse, N. Y.	117	75	1	8
Trenton, N. J.	61	36	3	5
Utica, N. Y.	38	23	4	-
Yonkers, N. Y.	44	32	3	-
EAST NORTH CENTRAL:	2,739	1,517	82	156
Akron, Ohio	78	48	-	6
Canton, Ohio	53	29	1	2
Chicago, Ill.	792	421	18	47
Cincinnati, Ohio	137	89	5	9
Cleveland, Ohio	237	129	5	15
Columbus, Ohio	130	77	1	5
Dayton, Ohio	83	42	3	5
Detroit, Mich.	334	184	6	17
Evansville, Ind.	42	25	2	-
Flint, Mich.	41	19	2	5
Fort Wayne, Ind.	57	31	4	5
Gary, Ind.	36	10	2	3
Grand Rapids, Mich.	69	46	6	4
Indianapolis, Ind.	172	83	3	8
Madison, Wis.	49	20	7	3
Milwaukee, Wis.	136	87	3	6
Peoria, Ill.	58	34	3	6
Rockford, Ill.	34	22	3	2
South Bend, Ind.	45	31	2	1
Toledo, Ohio	100	60	4	6
Youngstown, Ohio	56	30	2	1
WEST NORTH CENTRAL:	859	458	19	54
Des Moines, Iowa	82	48	3	6
Duluth, Minn.	24	16	1	-
Kansas City, Kans.	36	12	2	5
Kansas City, Mo.	127	66	-	10
Lincoln, Nebr.	24	14	1	2
Minneapolis, Minn.	116	71	2	8
Omaha, Nebr.	79	41	-	2
St. Louis, Mo.	249	123	6	17
St. Paul, Minn.	87	47	1	4
Wichita, Kans.	35	20	3	-

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
SOUTH ATLANTIC:	1,245	633	37	63
Atlanta, Ga.	121	46	3	5
Baltimore, Md.	292	155	2	15
Charlotte, N. C.	65	25	1	2
Jacksonville, Fla.	83	45	2	4
Miami, Fla.	105	55	-	4
Norfolk, Va.	49	23	9	2
Richmond, Va.	110	64	4	6
Savannah, Ga.	49	21	4	5
St. Petersburg, Fla.	80	63	2	4
Tampa, Fla.	71	33	2	5
Washington, D. C.	179	80	6	9
Wilmington, Del.	41	23	2	2
EAST SOUTH CENTRAL:	671	329	25	42
Birmingham, Ala.	122	55	1	7
Chattanooga, Tenn.	43	19	8	1
Knoxville, Tenn.	51	33	1	-
Louisville, Ky.	144	77	11	10
Memphis, Tenn.	132	60	2	15
Mobile, Ala.	55	32	1	5
Montgomery, Ala.	42	17	1	-
Nashville, Tenn.	82	36	-	4
WEST SOUTH CENTRAL:	1,293	643	42	90
Austin, Tex.	33	22	2	1
Baton Rouge, La.	36	25	2	-
Corpus Christi, Tex.	26	16	1	-
Dallas, Tex.	168	81	1	12
El Paso, Tex.	55	24	3	12
Fort Worth, Tex.	90	48	2	7
Houston, Tex.	265	121	7	9
Little Rock, Ark.	52	29	5	7
New Orleans, La.	180	76	5	16
Oklahoma City, Okla.	113	55	1	9
San Antonio, Tex.	134	77	3	10
Shreveport, La.	67	41	7	3
Tulsa, Okla.	54	28	3	4
MOUNTAIN:	454	234	15	22
Albuquerque, N. Mex.	45	18	1	-
Colorado Springs, Colo.	25	16	2	2
Denver, Colo.	130	78	6	2
Ogden, Utah	27	18	2	1
Phoenix, Ariz.	91	50	-	6
Pueblo, Colo.	23	16	-	1
Salt Lake City, Utah	63	29	3	5
Tucson, Ariz.	50	29	1	5
PACIFIC:	1,697	1,010	32	58
Berkeley, Calif.	23	17	-	-
Fresno, Calif.	43	23	1	1
Glendale, Calif.	37	27	1	-
Honolulu, Hawaii	50	21	-	4
Long Beach, Calif.	114	66	3	3
Los Angeles, Calif.	498	303	6	20
Oakland, Calif.	114	68	4	5
Pasadena, Calif.	38	29	-	1
Portland, Oreg.	127	80	1	5
Sacramento, Calif.	73	40	1	-
San Diego, Calif.	99	55	5	4
San Francisco, Calif.	201	114	1	4
San Jose, Calif.	28	22	1	1
Seattle, Wash.	151	80	5	6
Spokane, Wash.	39	40	1	2
Tacoma, Wash.	42	25	2	2
Total	13,306	7,376	452	692

Cumulative Totals
including reported corrections for previous weeks

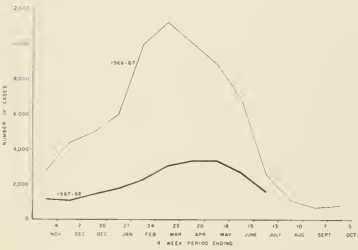
All Causes, All Ages	364,250
All Causes, Age 65 and over	211,596
Pneumonia and Influenza, All Ages	15,630
All Causes, Under 1 Year of Age	16,787

CURRENT TRENDS
MEASLES – United States

For the week ending July 13, 1968, 325 cases of measles were reported to NCDC. This is the third consecutive week in which the reported cases have totaled fewer than 500 cases per week. The reported cases, since the week ending January 13 when 483 cases were reported, have ranged from 517 to 949.

From June 16 through July 13, 1968, (weeks 25-28), 1,580 cases of measles were reported. This is 1,125 fewer cases than the 2,705 reported for the preceding 4-week period and is 60 percent of the 2,653 cases reported for the corresponding 4 weeks in 1967 (Figure 2). The cumulative total for the first 40 weeks of the current measles epidemiologic year* is 32.5 percent of the 67,889 cases reported during the comparable 40-week period in epidemiologic year 1966-67.

Figure 2
REPORTED CASES OF MEASLES BY 4-WEEK PERIODS
UNITED STATES
EPIDEMIOLOGIC YEAR 1967-68, COMPARED WITH 1966-67



(Reported by State Services Section, and Statistics Section, Epidemiology Program, NCDC.)

*The epidemiologic year for measles begins with week 41 of the calendar year and ends with week 40 of the succeeding year.

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In the article "Shigella – July-December 1967," paragraph two is incorrect. Please substitute the following corrected paragraph:

"Of the total of 6,556 isolations, 5,113 were classified by serotype. Those 5,113 shigella isolations represented 23 serotypes. The six most frequently reported serotypes during the 6-month period are presented in Table 2."

In the same article in Table 2, the word "Total" should be substituted for the word "Subtotal" and the lines "Specimens not typed 1,638" and "Total 6,556" should be deleted.

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ATTN: THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY

U.S. DEPARTMENT OF
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